

faithful worker and the American Museum of Natural History an artist gifted with an unusual and possibly unique combination of faculties.

Mr. Matausch's entomological publications are as follows:

Gynandromorphic Membracidae. JOURN. N. Y. ENT. SOC., Vol. XVII, 1909, p. 165.

Observations on Membracidae in the Vicinity of Elizabeth and Newark, N. J. JOURN. N. Y. ENT. SOC., Vol. XVIII, 1910, pp. 164-171.

Similia Camelus Fabricius and Some of Its Variations. JOURN. N. Y. ENT. SOC., Vol. XVIII, 1910, pp. 171-172.

Entylia Germar and Its Different Forms. JOURN. N. Y. ENT. SOC., Vol. XVIII, 1910, pp. 260-263.

The Effects of Castration in Membracidae. JOURN. N. Y. ENT. SOC., Vol. XIX, 1911, pp. 194-196.

Observations on the Life-History of Enchenopa binotata Say. JOURN. N. Y. ENT. SOC., Vol. XX, pp. 58-67.

Observations on Some North American Membracidae in Their Last Nymphal Stages. Bull. Amer. Mus. Nat. Hist., Vol. XXXI, 1912, Art. XXVI, pp. 331-336.

Notes on a Peculiar Nymph Variation of Enchenopa Binotata Say. Journ. N. Y. Ent. Soc. Vol. XXIII, p. —.

ROY W. MINER.

JULIUS MEITZEN

Mr. Julius Meitzen, a former member of the New York Entomological Society died of pneumonia on May 1, at the age of 80.

Mr. Meitzen was interested in Coleoptera of the world of which he had brought together a fair collection.

PROCEEDINGS OF THE NEW YORK ENTOMOLOGICAL SOCIETY.

MEETING OF JANUARY 4, 1916.

The annual meeting of the New York Entomological Society was held January 4, 1916, at 8:15 P. M., in the American Museum of Natural History, Vice-President Harry G. Barber in the chair, with 23 members and six visitors present.

Mr. Dickerson, as chairman of the Nominating Committee, submitted the following nominations for officers for 1916: For President, Harry G. Barber;

for Vice-President, Lewis B. Woodruff; for Secretary, Chas. W. Leng; for Treasurer, William T. Davis; for Librarian, Frank E. Watson; for Curator, Andrew J. Mutchler; for Executive Committee, R. C. Osburn, C. E. Sleight, R. P. Dow, E. Shoemaker, G. P. Engelhardt; for Publication Committee, Charles Schaeffer, F. E. Lutz, W. P. Comstock, E. L. Dickerson; for Delegate to New York Academy of Science, Wm. T. Davis. On motions duly made, seconded and carried, the nominations were closed and the officers above named were elected by affirmative ballot cast by the Secretary.

The president appointed the Auditing Committee, C. F. Groth, G. W. J. Angell, John D. Sherman, Jr., and the Field Committee, Chas. Wunder and Alan Sloan Nicolay.

Mr. Sherman spoke of the Roberts collection of water beetles and the effort being made to secure it for the American Museum; also of a new Check List of Coleoptera which, in conjunction with Mr. Leng, he hoped to publish.

Mr. Ottolengui spoke of his pleasure in being able to attend the meeting after thirteen years' absence, and his sorrow at hearing of Mr. Roberts's illness.

Mr. Davis spoke of "Some Insects from Western New York," using as exhibits a map showing the 800-mile route covered by automobile with Profs. Bradley and Crosby, of Cornell University, Mr. Hook, and Dr. Forbes as companions, several large boxes of insects and many photographs of the region, besides specimens of plants, rocks and oil peculiarly indicative of its character. He said in part that the southwestern corner of the State, near Olean, was selected a year ago, because it was on the watershed of the Allegheny River, and that at Rock City an excellent base was located where the care necessary to preserve the oil derricks from fire kept the woodland in the best condition for entomologists, while the elevation of 2,300 ft. and the connection with the West through the Allegheny River (evidenced by the presence of the cucumber tree) caused the occurrence of many interesting species. The preliminary visits to McLean, near Ithaca, remarkable for its cold high-land swamp, where Labrador tea, the small cranberry and trillium grow, and to various glens near Ithaca, and subsequent visits to Watkins Glen, Lake Erie, Potter's Swamp and Letchworth Park, were also interesting.

Among the insects shown, *Phyciodes batesii*, which was taken in considerable numbers, was styled the prize catch, though a mountain form of *Papilio turnus*, *Melitæa harrisi* and *Pieris oleracea* were also conspicuous among the butterflies. *Tachopteryx theryi*, collected at Portage, *Gomphus descriptus* from West Danby and Ithaca, and *Tetragoneuria canis* from West Danby, were among the fourteen species of dragonflies shown.

Henicocephalus biceps Say (*culicis* auct) was observed gathering in swarms over piles of sawdust like flies, as described by O. A. Johannsen, in *Psyche*, XVI, 1909, and was another interesting capture.

Exceptionally large galls made by the fly, *Eurosta solidaginis*, on golden rod, as described by Chi Ping in *Pomona Journal Ent. & Zool.*, VII, 1915, formed another exhibit. A large number of *Anthonomus* sp. found on *Kalmia latifolia*, and of *Malthodes* sp. were among the many interesting coleoptera

shown, though the larger *Cychnus*, *Centrodera* and *Anthophilax* were more showy. An interesting series of *Donacia rufa* found on *Caltha palustris* and on buttercup and of *Galerucella rufosanguinea* found in such numbers on wild cherry that the trees were in places defoliated, were also included.

In orthoptera a large box was required to show the captures which included sixteen species all collected before the middle of June.

Mr. Davis's remarkably successful photography showed well the gigantic rocks, sometimes grasped by the great exposed roots of the yellow birches, that give Rock City its name, and in one plate the shooting of a completed oil well, with the column of oil rising high above it, and added much to the interest of his remarks, which were discussed by Messrs. Schaeffer, Dickerson and others at their conclusion.

Mr. H. B. Weiss read a paper on "Insect Fauna of New Jersey Greenhouses excluding Coccidæ"—which will be printed elsewhere.

In reply to a question, Mr. Weiss said that *Aramigus fulleri*, the larva of which feeds on roots of greenhouse roses was rare in New Jersey, being actually known from only three or four places.

The secretary read a communication from Dr. Osburn on a dragonfly migration, observed by Mrs. Osburn, which will be printed in Miscellaneous Notes.

Mr. Engelhardt described a similar occurrence observed near the shore of Long Island on Columbus Day, October 12, when thousands of *Anax junius* were seen zigzagging about and settling in the grass.

Mr. Dickerson recorded with regret the death of F. M. Webster.

Mr. Dow exhibited and donated specimens of wood from Lahaway, N. J., showing the work of woodpeckers in search of larvæ of *Prionoxystus robinia*, remarking on the length of tongue obviously required to reach them, and the number of years elapsed between the commission of the crime and its detection by the splitting of the wood; the annual rings serving both to conceal the evidence and count the years. He also donated specimens of the work of *Trypoxylon* and other wasps.

A member contributed anonymously the following lines composed by an ancestor, who had been unjustly reproached by a female afflicted with *Pediculus capitis*:

"A lady once told me and in her own house
That I was not worth three skips of a louse,
Forgive the dear creature, the words that she said,
For ladies will talk of what runs in their head."

MEETING OF JANUARY 18, 1916.

A regular meeting of the New York Entomological Society was held on January 18, 1916, in the American Museum of Natural History, President Harry G. Barber in the chair, with 12 members and two visitors present.

In the absence of the secretary, the president requested Mr. Sherman to act as secretary.

Miss C. Sidney Spencer, of 437 W. 59th St., College P. & S., proposed for membership at the last meeting, was duly elected.

Dr. Lutz, delegate to the Pan-American Congress, reported that he had attended its meetings.

Mr. Davis, delegate to the New York Academy of Sciences, reported the contemplated centennial celebration early in 1917, of the anniversary of the founding of the New York Lyceum of Natural History, in 1817.

Mr. Davis presented some notes by Mr. Woodruff and himself on local *Malachiidae*, found on Staten Island and Long Island.

Prof. Brues spoke of his trip to the West Coast of South America in 1912 with the Strong Expedition from the Harvard Medical School, and especially of the studies by this party of the relations between insects and some of the diseases prevalent in the regions visited. On the west coast of South America yellow fever is confined to parts of the Colombian coast and the lowlands of Ecuador, where there is a dense forest growth, with heavy rainfall and hot climate, Guayaquil being a great hot-bed of disease, especially prevalent during the rainy season. Among the natives the disease occurs almost entirely with young persons, but visitors, even natives from the nearby mountains, are susceptible at any age. Owing to the many changes in the government of Ecuador, little has been done to stamp out the disease, although it has been entirely eliminated at the Isthmus. The boats anchor at Guayaquil, 400 meters from shore, and after the four days' journey to Panama, are quarantined two days, and this period of six days covers the period of incubation, thus preventing disease from spreading north. The mosquito carrying yellow fever in this territory is *Stegomyia pallipes*.

At Buena Ventura, on the west coast of Colombia, the common mosquito, *Culex fatigans* (*quinquefasciata*?) is a carrier of the elephantiasis and phleriasis prevalent there, and also at Panama.

In the deep canyons, including the Lima River, near Lima, the two diseases known as verruga (meaning await) and arroya fever, are quite common, occurring simultaneously in many cases and the latter having a very high death rate (about 80 per cent.).

Townsend believed the two diseases identical and found *Phlebotomys* to be the carrier.

The bacteriological investigations of the Strong Expedition, however, lead to the belief that the two things are separate diseases,—verruca, caused by an ultra-microscopic, presumably protozoan organism, and probably carried by a species of tick (like the somewhat similar Texas-fever and Rocky mountain fever diseases) and arroya-fever, caused by a small bacterian and carried by *Phlebotomys*.

These diseases are always contracted at night and at an altitude above 3,000 feet.

Prof. Brues spoke also of great abundance of insects near Guayaquil at electric lights, including a huge *Belostoma*, large water-beetles and Katydid.

In canyons further south in arid regions, along the rivers where only

there is vegetation, occurred many interesting insects, especially a group of parasitic Tachinid flies, having many bristles, the species of which, while resembling each other superficially very closely, are separated by great structural differences in the antennal and mouth parts.

Very large carpenter bees, of the size of humming birds, visible at great distance, were also common.

Mr. Watson exhibited five paratypes of *Protoparce rustica* Fabr. var. *cubana* Wood, lately described in Ent. News (December, 1915), from the Museum collection.

Dr. Lutz mentioned his being present at the annual meeting of the Washington Entomological Society, when Pres. Caudell made his address on various superstitions associated with the orthoptera, and at which also the new office of honorary president was created, and Dr. Schwarz elected to same.

Mr. Dow exhibited photographs of the late Mr. Brakeley and of his house at Lahaway.

Mr. J. W. Angell exhibited some Lucanid monstrosities, including a *Lucanus* with seven legs; also his collection of Lucanids of the exotic genus *Chiasognathus*.

Mr. Davis called attention to the article by C. W. Beebe in Bull. of Zoölogical Society for January, 1916 (Vol. 19, No. 1), describing the many insects, shells, etc., sifted from the leaves, sticks, moss, earth and mold of a Brazilian jungle, taken from roots of a tree, about which *Heliconia* grew in abundance.

MEETING OF FEBRUARY 1, 1916.

A regular meeting of the New York Entomological Society was held February 1, 1916, at 8:15 P.M., in the American Museum of Natural History, President Harry G. Barber in the chair, with twenty members and several visitors present.

The curator reported the rearrangement of the Cistelidæ or Alleculidæ of the local collection, following the Saturday afternoon meeting of January 22, and announced as subject for the Saturday afternoon meeting of February 19, the families Lagriidæ and Melandryidæ.

Mr. Schaeffer for the Publication Committee reported the receipt of the first sheets of galley proof of the Van Duzee List.

Mr. Davis exhibited Occasional Papers of the Boston Society of Natural History, VII, 1915, being a review of New England Mollusks by Chas. W. Johnson.

Mr. Leng read "Notes on Cistelidæ" which will be published in the JOURNAL.

Mr. Schaeffer commenting thereon said he suspected the humeral red spot in some species of *Mycetochara* might be evanescent and the only difference between them and some of the totally black species might thus disappear.

Dr. Lutz and Mr. Davis gave a "Résumé of Explorations in Florida and the West Indies" illustrated with photographs. Dr. Lutz speaking first said that shortly after he became a member of the Society a fairly definite plan

was formed in the Museum to devote exploration, in conjunction as far as possible with the affiliated societies, to the study of geographical distribution and routes of dispersal between North and South America. The effect of isolation as exemplified in the mountainous West Indian islands isolated by oceanic waters and in the mountains of Arizona, also isolated but by desert regions, and both equally in the path between the two continents, necessarily became a part of the problem. The steps thus far taken have included collections in our local region, in the mountains of North Carolina, in Florida, in the West Indies and in the northern part of South America. The local region was covered by the wagon journey, in which many of our members took a more or less active part, and the work on the local collection, still in progress, became a part of the general plan. The mountains of North Carolina were repeatedly visited by Beutenmuller and a large amount of material was accumulated. On account of the peculiar interest it possesses, Florida has been studied closely, in 1911 by Dr. Lutz with Davis and Leng, in 1912 by Davis and Grossbeck, in 1913 by Davis and Sleight, in 1914 by Mutchler and Watson; a different part of the State being visited on each occasion. The West Indies have been even more frequently visited, the first journey being a reconnaissance of the Lesser Antilles and northern South America by Prof. Crampton and Dr. Lutz, followed by the Jamaica trip of Grossbeck and Dow in 1912, the Cuban trip of Dr. Lutz and Mr. Leng in 1913, Porto Rican trips of Dr. Lutz, Barber, Mutchler and Watson in 1914 and 1915, and of Watson to San Domingo in 1915. Coöperation with the New York Academy of Sciences and the Porto Rican Government and the financial aid of friends of the Museum has materially enlarged the possibilities of West Indian exploration.

The number of specimens accumulated by these journeys is far in excess of 100,000 and the publication of the results has necessarily been slow, from the great number requiring identification. However, the Florida material has already served as a basis for the Diptera of Florida by Johnson, the Hemiptera of Florida by Barber and of the Coleoptera and the Carabidæ of Florida by Leng, as well as the description of new species of Orthoptera by Davis. A paper on the Lepidoptera left unfinished by Grossbeck's untimely death, will be finished by Watson. The West Indian material has served in the same way for the basis of the List of Greater Antillean Spiders by Dr. Lutz, following identifications by Banks, and for the Prel. List of Coleoptera by Leng and Mutchler.

Dr. Lutz added that a continuation of these explorations by Watson in Jamaica and by himself in Arizona was planned for 1916, and a continuation of the publication of the results was in prospect.

Mr. Davis, taking the floor, spoke particularly of the variety of environments found in Florida, using a quotation from Dr. Small's "Florida Trees" of 1913 as his text and illustrating his remarks by numerous excellent photographs of Floridian scenes. He said that Dr. Small's statements that Florida possessed a larger tree flora than any other equal area in the United States,

and nearly half the species of trees in the United States are found in Florida, were remarkable in view of the sameness of the pine forests, as seen from the railroad car; and in view of the intimate relation between insects and their food plants, serve also as an indication of the variety of species of insects found in Florida. His own journeys in Florida with different companions had covered the central part of the state in 1911, the west coast in 1912 and the east coast in 1913, and his photographs showed the vegetation of many very different parts of the state from Jacksonville to Key West and from Key Marco and Chokoloskee on the gulf coast to Big Pine Key on the Atlantic coast. The human interest was never far distant in the remarks that accompanied the exhibition, and the members were entertained by bits of family history of the Seminole Indians Mr. Davis met, the dangers of navigation among the Ten Thousand Islands, the fact that he was out of sight of land on Lake Okeechobee, the wild cat that spit at Sleight at LaGrange, the wading through cypress swamps required to reach Deep Lake, as well as by the beauty of his pictures of the trees and scenery amid which his Florida insects were collected.

Dr. Lutz then exhibited his collection of West Indian photographs, arranged in series and accompanied by maps, marked to show where the photographs were taken. Time did not permit of his thoroughly explaining these pictures, aggregating over 600 subjects or dwelling upon the collections of Lepidoptera arranged by Mr. Watson and of Coleoptera arranged by Mr. Mutchler, to accompany them; but Porto Rico was especially selected to show the thorough manner in which the exploration, after five journeys, had been carried on at about twenty-five stations in different parts of the island.

During the informal examination of the photographs and specimens which closed the evening, Mr. Dow exhibited the mummied hand of an Egyptian wearing a ring in which a beetle was mounted, and Mr. Schaeffer exhibited the species of Coleoptera described and referred to in the December number of the JOURNAL, calling particular attention also to *Elatrinus bicolor*, found by Manee at Southern Pines, N. C., as the first species of the genus found in the East; and to *Calosoma sycophanta* found by Mr. Schott in Prospect Park, Brooklyn.

MEETING OF FEBRUARY 15, 1916.

A regular meeting of the New York Entomological Society was held February 15, 1916, at 8:15 P.M., in the American Museum of Natural History. President Harry G. Barber in the chair, with eighteen members and three visitors present.

Mr. Frank Morton Jones, 2000 Riverview Ave., Wilmington, Del., was elected an active member.

The secretary read an obituary notice of Ignaz Matusch, prepared by Mr. Miner, and two communications from Mr. Brehme.

Dr. Lutz read a paper on "Centers of Dispersal and their bearing on the present Distribution of Animals," in which some recent literature was discussed, and the idea that results of studies in palæontology might profitably be used in the study of insect dispersal was advanced.

Mr. Shoemaker exhibited "Some Insects taken near Slide Mountain, N. Y., in 1915," stating that he spent eight or nine days at a place between Big Indian and the base of the mountain, from June 26 to July 5, and, although more than half the days were disturbed by thunderstorms, that he had been able to obtain many insects by beating and sugaring. Ten specimens of *Cychnus canadensis*, one of *Anthophilax malachiticus*, and a great many Elateridæ and Cerambycidæ were among the beetles shown.

Mr. Davis read a paper by Stephen G. Rich on "Some Respiratory Structures of Dragon Fly Larvæ," illustrated by the author's drawings, figures from Packard, and specimens supplied by Mr. Davis.

Mr. G. W. J. Angell presented several volumes of the Annals of the Belgian Entomological Society to the library and exhibited a carabid beetle from Lake Tanganyika, Africa, apparently representing a new species and genus.

Mr. Woodruff exhibited specimens of the Tortricid moth *Archips infumatana*, taken at Litchfield, Conn., on hickory, and read a memorandum respecting same, which will be printed in Miscellaneous Notes.

Several members commented on the insects seen on the very warm days at the end of January. Mr. J. W. Angell caught a freshly emerged *Cicindela 6-guttata* in Bronx Park under a log; Mr. Olsen caught a water-beetle flying; Mr. Dickerson a noctuid moth flying in the window and Mr. Davis was told that the mourning cloak butterfly was flying on Staten Island.

Mr. Davis exhibited *Cicada canalicularis* from Portage La Prairie, Manitoba, and gave also other northern records known to him in Nova Scotia, Quebec and Ontario.

MEETING OF MARCH 7, 1916.

A regular meeting of the New York Entomological Society was held March 7, 1916, at 8:15 P.M., in the American Museum of Natural History; President Harry G. Barber in the chair, with fourteen members and six visitors present.

The curator reported donations to local collection from Messrs. Davis, Shoemaker and Leng and announced a meeting of coleopterologists on Saturday, March 18, to study Mordellidæ.

Mr. Carlos C. Hoffman, 2A San Augustin 56, Mexico D. F., was nominated for active membership, and the by-laws being suspended for the purpose, he was immediately elected.

Mr. J. W. Angell announced the death of Julius Meitzen, of pneumonia. Letters from Henry Brown and Frank Morton Jones were read.

Mr. Watson exhibited "Recent additions to the Museum Collection of Sphingidæ"; speaking particularly of gifts from Mr. B. Preston Clark, of Boston, and of the following species:

Protoparce occulta Rothschild and Jordan. First specimen from Jalapa, Mexico, collected by Mr. Schaus. Second specimen from Jalapa, Mexico, collection of Hy. Edwards.

Xylophanes damocrita Druce, from Brazil, collector unknown.

Perigonia lusca f. *ilus* Boisduval, no locality on specimen, collector unknown. Rothschild and Jordan give the habitat as Mexico to Matto Grosso. Gift of Mr. B. Preston Clark.

Leucorhampa ornatus Rothschild, from Rio, Brazil, collector unknown. Gift of Mr. B. Preston Clark.

Euryglottis albstigmata basalis Rothschild. Inca Mines, Peru, collector, H. H. Keys. The typical form is from Colombia.

Mr. Watson also spoke of the genus *Calisto*, saying in part that this small but interesting genus, consisting of six species and two varieties, is found only in the Antilles. It seems to illustrate very well the effect of isolation on a species, as each of the Greater Antilles has its own peculiar forms, not found in any of the other islands, as far as is now known.

All of the forms are in the Museum Collection with the exception of *C. archebates* Menetries.

C. Zangis Fabricius is common in Jamaica.

C. nubila Lathy from Porto Rico, is a very common butterfly there.

C. archebates Menetries is from San Domingo (Haiti). The only specimens in existence, according to Seitz, are in the collection of Godman and Salvin and the St. Petersburg Museum.

C. pulchella Lathy is from San Domingo, where it seems to be locally common.

C. pulchella ♀-f. *tenebrossa* Lathy from San Domingo.

C. herophila Hübner from Cuba.

C. hysius Godart is from San Domingo, where it is very common. It is close to *C. herophila* Hübner, but is distinct.

C. hysius f. *confusa* Lathy, also from San Domingo. *C. hysius* Godart has also been reported from Jamaica.

Mr. Olsen made an "Exhibition of Membracidae from Trinidad and British Guiana," including paratypes of a species recently described by W. D. Funkhouser.

Dr. Lutz referred to the complete deception in nature by which one of the species shown mimics an aphid attended by ants.

Mr. Dickerson gave a list of Nitidulidae found on flowers in New Jersey nurseries, referring particularly to *Carpophilus antiquus* having been found on cornsilk.

Mr. J. W. Angell exhibited a number of Silphidae and Scarabidae, referring particularly to a minute specimen.

Mr. Davis exhibited a paper sign, taken from a tree in Letchworth Park, that had been eaten by *Vespa maculata*, a case as he expressed it of "stealing paper to make more paper."

He also exhibited the species of *Galerucella* allied to *cavicolis*, pointing out the depth of the pronotal fovea and shining surface of the species he had found so abundant at Rock City, N. Y., as to completely defoliate *Prunus pennsylvanica* and *serotina*. He stated that this species appeared to be *cavicolis*, and to differ from our local species which is comparatively dull,

without so deep a fovea, and certainly unknown to devastate the foliage so completely.

Mr. Davis also exhibited Coleoptera collected by Alanson Skinner in Manitoba, Wisconsin and Oklahoma, commenting particularly on the forms of *tranquebarica* var. *kirbyi*, from the northwest, and those of *sexguttata* var. *levettei* from Oklahoma.

Mr. Dickerson exhibited *Cactopinus hubbardi* Schwarz, identified by Charles Dury, calling attention to the remarkable horn.

Dr. McDunnough, at the invitation of the president, spoke of the Barnes collection of lepidoptera and the exquisite care taken to compare the specimens with the types in this country and abroad; praising especially Aug. Grote, Herman Strecker and A. S. Packard for the pains they had taken to so mark their types that such comparisons were facilitated, and closing by extending a cordial invitation to our members to visit Decatur to see the results.

Mr. Hoffman spoke briefly of his pleasure at being able to attend the meeting.

MEETING OF MARCH 21, 1916.

A regular meeting of the New York Entomological Society was held March 21, 1916, at 8:15 P.M., in the American Museum of Natural History, President Harry G. Barber in the chair, with 18 members present.

The curator reported donations to the local collection from Messrs. Dickerson, Dow, Shoemaker and Leng; and continuance of study on the Mordellidæ on Saturday afternoon, April 1.

Mr. Nutman exhibited 79 species of "Cerambycidae from the Adirondack Mountains" collected by himself during the past nine years, principally between May and August and at elevations of about 1,000 feet. Mr. Nutman said the habits of the adults varied considerably, some like *Leptura* being found on flowers, others like *Callidiini* and *Lamiini* on logs or sides of houses in the sunlight, while a few of the *Callidium*, *Phymatodes*, *Asemum* and *Xylotrechus* seemed partial to the screen doors. Golden rod, wild cherry, spiræa and sumach were the most attractive flowers, the white daisy yielding only *Acmaöps pratensis* and *Leptura chrysocoma*. *Saperdas* and *Obereas* were found on poplar, *Psenocerus supernotatus* on various vines about the house. The different species varied in date, *Asemum* being one of the earliest, dozens at a time coming from a norway pine stump about the beginning of May; *Leptura canadensis* on the contrary being found in July and August. The collecting was most productive at the edges of cultivated land but a few species were found in the woods, particularly *Anthophilax malachiticus*, a fine specimen of which excited admiration and envy. The species varied in abundance in different seasons, *Leptura vagans* for instance being common in 1909 and 1910, while *Leptura vibex* was not noticed until 1910, since when it has been common on blackberry.

Mr. Davis, commenting on the specimens shown, pointed out the narrow stripes of *Saperda candida*, which he had previously noticed in Adirondack specimens.

Mr. Dow read a paper on "Aristotle as an Entomologist," briefly sketching his history and citing many passages to show how often the first mention of the scientific names we use is found in his writings, even to the word Entomos itself; and how the first rudiments of our present classification can be traced in his differentiations.

Mr. Weeks after urging the claims of Solomon to be considered also as an entomologist, spoke feelingly against a bill to be introduced in the State Senate, looking to local control of mosquito extermination and solicited the support of the society in opposing it.

The president ruled that such matters were not within the scope of the society's activities.

Mr. Schaeffer presented the following additions and corrections to Smith's List of New Jersey Insects, and spoke also of the doubtful validity of the record of *Corymbites rotundicollis*.

Microrhagus audar Horn. Three specimens labelled New York, New Jersey and Fort Lee, N. J., July 26.

Microrhagus imperfectus Lec. One specimen, Fort Lee, N. J.

Phlegon pectorosus Lec. One specimen of this species taken at Bellport, Long Island, by A. Nicolay. This species is known from Indiana, Maryland and Pennsylvania and is likely to occur in New Jersey also.

Cardiophorus erythropus Er. One specimen of this species from Atlantic Highlands, N. J.

Elater carbonicolor Esch. Reported by Green from Clementon. It is an Alaskan species and has to be stricken from the list. Mr. Green writes that it is a wrong identification and the species in question is *E. rubricus* Say.

Elater nigrinus Papk. A strictly northern species. Reported by Davis from Staten Island.

Elater luctuosus Lec. Reported by Beutenmuller from Fort Lee, and by Leng from Staten Island. Mr. Davis, who has the Staten Island specimen, showed it to me and it proved to be *E. pedalis*, a species not given in the New Jersey list, though I have also a specimen from New Jersey.

Melanotus opacicollis Lec. One specimen from Lakehurst, taken in August, new to the list.

Corymbites atropurpureus Melsch. One specimen of this species was collected by Jacob Doll in Paterson, May 3.

Corymbites copei Horn. Several specimens of this species from Pine Island, N. Y., collected by F. M. Schott and from Lakehurst, N. J.

Mr. Mutchler announced the acquisition by the museum, with the aid of several members of the society, of the Roberts collection of water beetles, including 19,000 specimens, practically all the described North American species, and many types. He exhibited a portion of the collection to show the admirable mounting and unusually long series of specimens.

Mr. Olsen exhibited a wax model he had made of *Acanthia lectularia*, in connection with which the secretary read a newspaper comment on Mr. Dow's title "There were bugs before ours, classic bugs; and we like to hear about them for they cannot bite us now."

Mr. Angell exhibited a rare species of *Strategus*.

Mr. Weiss showed a map giving the distribution, mostly in greenhouses, of comparatively new insect pests and spoke also of the *Cattleya* midge, of European earwigs becoming established at Newport, R. I., and of a hymenopterous leaf-miner.

MEETING OF APRIL 4, 1916.

A regular meeting of the New York Entomological Society was held April 4, 1916, at 8:15 P.M., in Heim's Restaurant, President Harry G. Barber in the chair, with twenty-one members present.

The librarian reported the binding of a set of the JOURNAL in Holliston Library Buckram No. 50.

Mr. Howard J. Shannon, 73 Union Ave., Jamaica, L. I., was elected an active member.

Mr. Davis spoke of a number of species of *Cicada*, illustrating his remarks by maps showing the distribution and by boxes of specimens in which were pinned drawings made by Mr. Olsen, of the diagnostic structures. In the course of his remarks he dwelt upon the necessity of specimens from type locality for accurate comparison with the original descriptions and recounted the difficulties he had surmounted in obtaining such for some of the early described species, which were thereby in some cases rescued from undeserved synonymy. In respect of distribution, he said that Leconte's districts, divided by meridional lines, and illustrated by the map in his Coleoptera of Kansas and Eastern New Mexico, 1859, were, for *Cicada*, more satisfactory than Merriam's zones, though the species with wishbone-shaped uncus were perhaps somewhat southern in distribution except that they extended northward through the Mississippi Valley.

Mr. Leng read a paper on "*Omophron* and its Distribution" in which he attempted to show that while the preglacial dispersal of the genus was from a northern centre towards the south, where Madagascar and Cape of Good Hope in the old world, and Hispaniola and Mexico in the new world have been reached, the postglacial dispersal has been in the contrary direction, viz.: from south to north, as evidenced by the spread of Gulf Strip species like *labiatum* and *nitidum* northward, the one along the Atlantic coastal plain, the other through the Mississippi Valley; and by the occurrence of numerous species now within the areas covered by ice during the glacial period. His remarks were illustrated by specimens of the American species and a few of those found in Mexico, Europe and Africa.

Dr. Lutz and Mr. Davis, in discussing the subject, pointed out that the idea of the north as the ancestral home of the larger groups was old and well supported by geological evidence in mammals and in trees.

Dr. Lehmann, upon invitation by the president, spoke of his interest in certain groups of lepidoptera during the last seven years and his journeys, completed and in prospect, devoted mainly to hunting *Argynnis* and *Melitæa*. Utah, Colorado and California are planned for 1916, and he said he would gladly give the lepidoptera caught outside his special desiderata to institutions or individuals desiring them.

Mr. Mutchler exhibited *Chauliognathus marginatus*, taken at Ramsey, N. J., April 1, by Dr. Lutz.

Mr. Dow, in a speech entirely beyond the ability of the secretary to reproduce, once more presented in glowing terms the attractiveness of Lahaway, and urged the members to join him in an inspection of the place on Sunday, April 16, when the arbutus will be in bloom.

MEETING OF APRIL 18, 1916.

A regular meeting of the New York Entomological Society was held April 18, 1916, at 8:15 P.M., in the American Museum of Natural History; Vice-President Lewis B. Woodruff in the chair, with fourteen members present.

The curator reported donations to the local collection from Messrs. Davis and Leng.

The librarian reported donation from Mr. J. W. Angell.

Dr. Lutz read a paper on "The Distribution of *Bombus* with Notes on certain species of Boreal America," illustrated by boxes of specimens and diagrams showing the phylogeny and range of certain species. The paper will be published in full.

Mr. Dow spoke of collecting at Lahaway on April 16 with Mr. Bequaert, exhibiting a number of the insects found and donating the more desirable to the local collection and to his fellow members. *Tricrania sanguinipennis* Say, an addition to Smith's New Jersey List, was found crawling on dune-like banks in a situation similar to that in which it was found last year at Central Park, Long Island, and Mr. Dow remarked that *Tettyx* was also abundant at both localities. Other interesting captures were *Euphoria areata*, a *Dinutes* resembling *robertsi*, etc.

Mr. Dickerson exhibited a number of hymenoptera, diptera, neuroptera and hemiptera found on willow bloom at Chester, N. J., and commented on the absence of beetles.